WESTERN SYDNEY
UNIVERSITY

Module 2

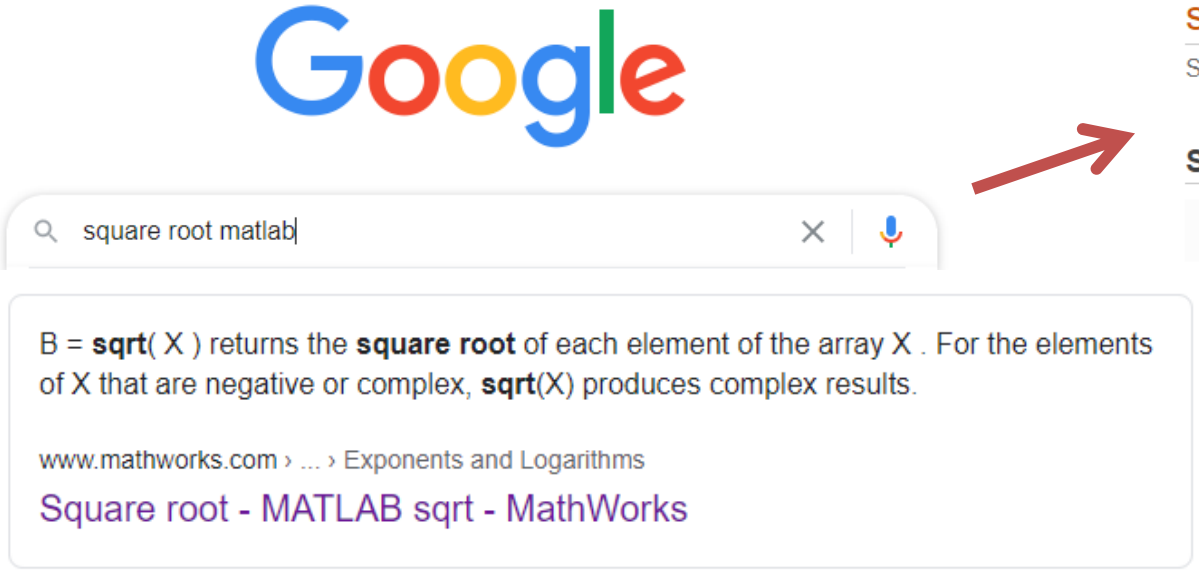
Discovering Functions

HELP feature

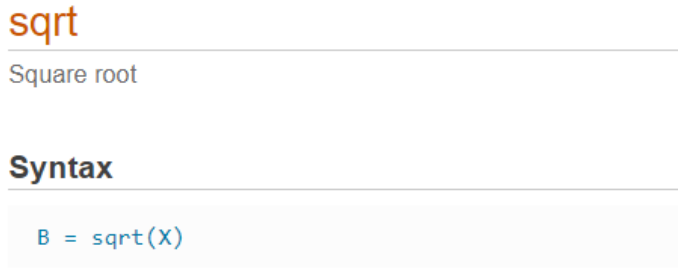
- MATLAB has many built-in functions – difficult to remember all
- MATLAB has an indexed library of its built-in functions that you can access through the help feature.
- If you type help in the command window MATLAB provides a list of help topics.
- Can use help function
  - e.g. help cos

Other methods

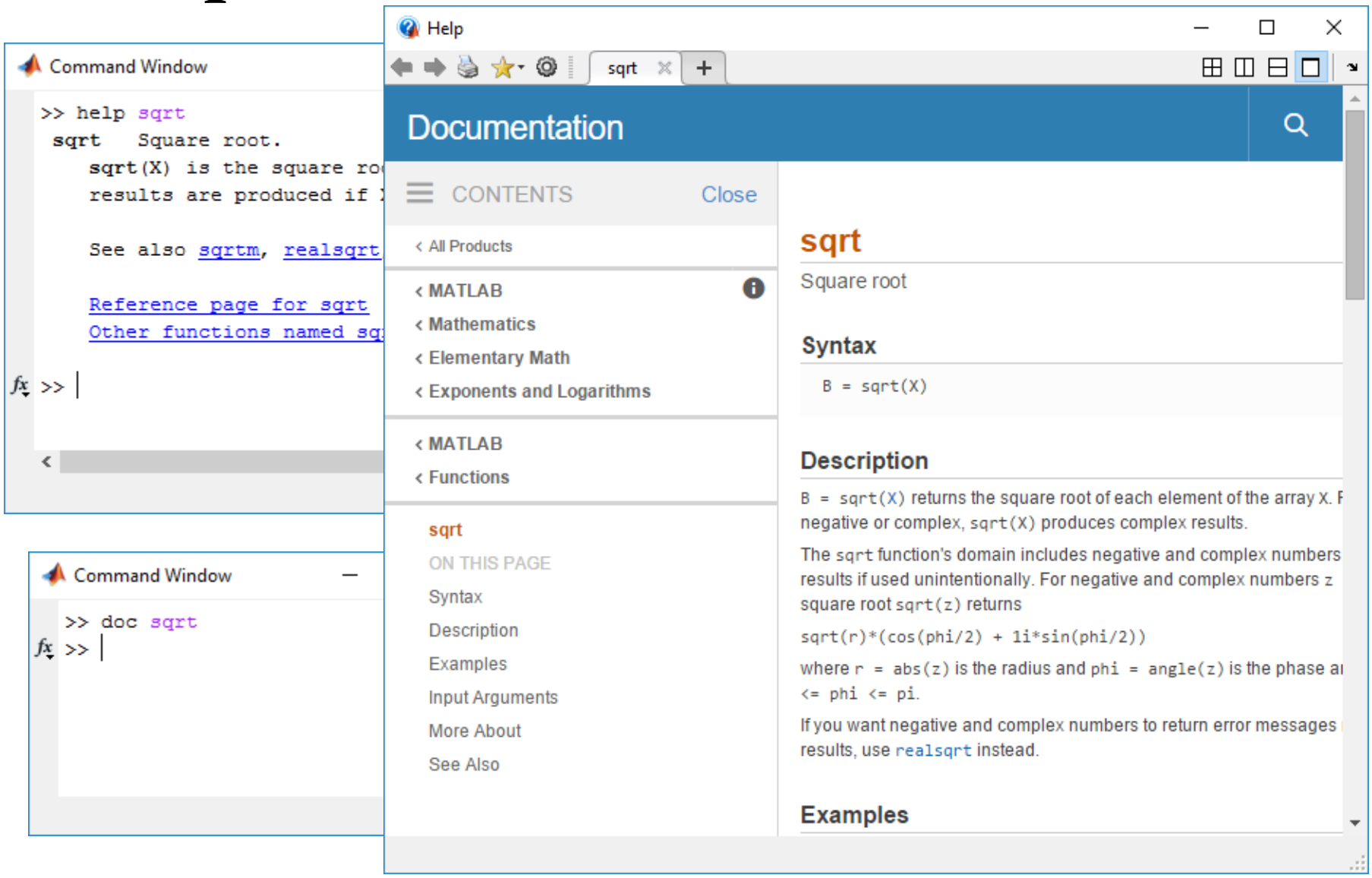
- Press F1 for documentation or type 'doc function name'. This is much more detailed than 'help' and often shows examples of the functions use
  - e.g. doc rand or doc sin
- Google search when function name is not known

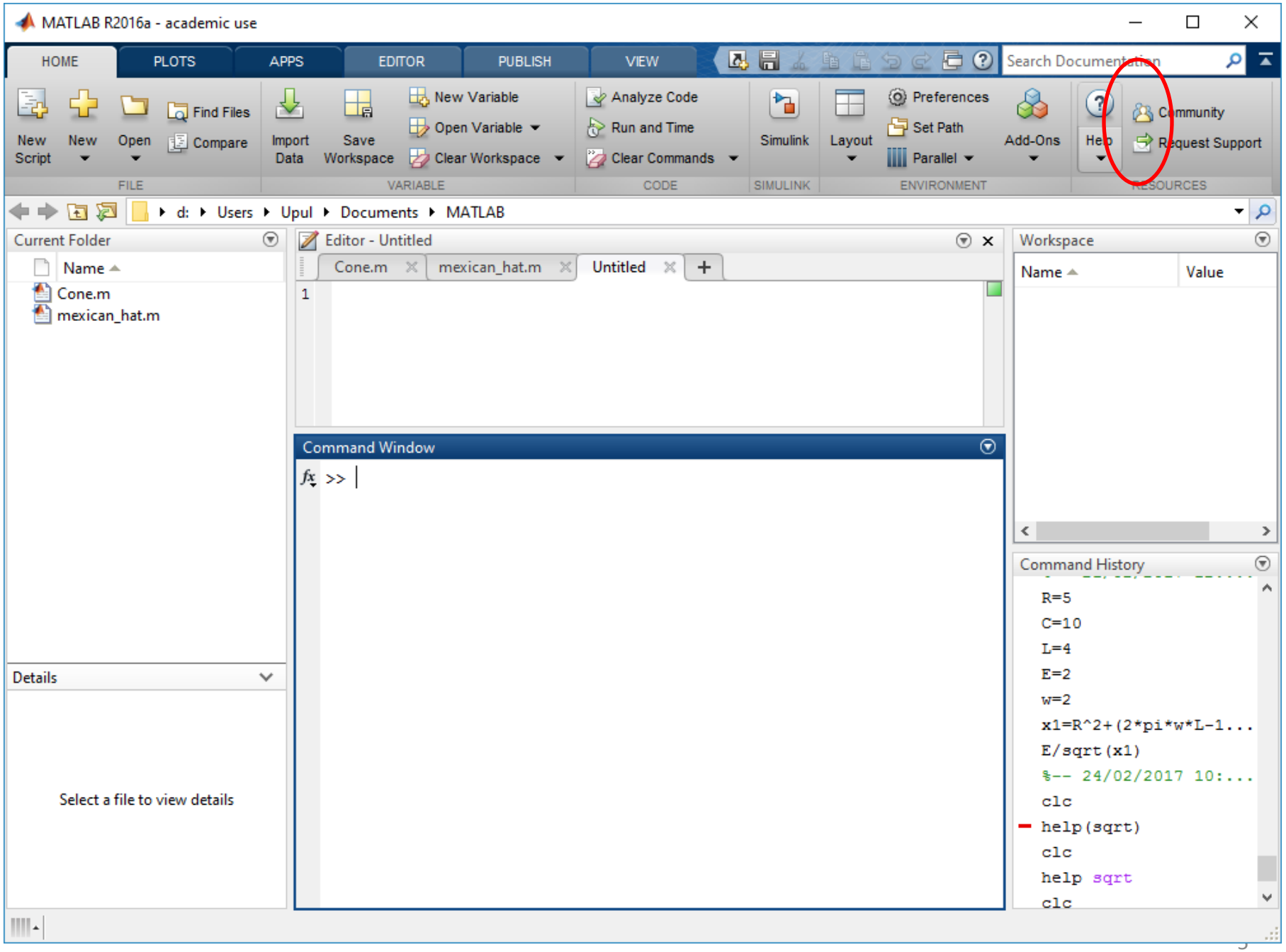


ɔm www.mathworks.com



Help – from Command Window




MATLAB R2016a - academic use
HOME
PLOTS
APPS
EDITOR
PUBLISH
VIEW
Search Documentation
New Script
New
Open
Find Files
Compare
Import Data
Save Workspace
New Variable
Open Variable
Clear Workspace
Analyze Code
Run and Time
Clear Commands
Simulink
Layout
Preferences
Set Path
Parallel
Add-Ons
Help
Community
Request Support
FILE
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CODE
SIMULINK
ENVIRONMENT
RESOURCES
d: ▸ Users ▸ Upul ▸ Documents ▸ MATLAB
Current Folder
Name
Cone.m
mexican_hat.m
Details
Select a file to view details
Editor - Untitled
Cone.m
mexican_hat.m
Untitled
1
Command Window
>>
Workspace
Name
Value
Command History
R=5
C=10
L=4
E=2
w=2
x1=R^2+(2*pi*w*L-1...
E/sqrt(x1)
%-- 24/02/2017 10:...
clc
help(sqrt)
clc
help sqrt
clc

Exercise

- Use MATLAB help to find the exponential, natural logarithm, and logarithm base 2 functions.
- Calculate e^7 `exp(7)`
- Calculate $\ln(4)$ `log(4)`
- Calculate $\log_2(12)$ `log2(12)`
- Calculate $\log_{10}(1.56)$ **log10(1.56)**

Discrete-mathematics functions

```
factor(10)

rats(4.2)

factorial(3)

gcd(20,10)

lcm(4,6)
```

- What do these functions do?
- If you are not sure, use the help feature.